



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,586	11/16/2000	Kosei Yamamoto	035576/205324	5088

826 7590 05/20/2004

ALSTON & BIRD LLP  
BANK OF AMERICA PLAZA  
101 SOUTH TRYON STREET, SUITE 4000  
CHARLOTTE, NC 28280-4000

EXAMINER

TRAN, HIEN THI

ART UNIT	PAPER NUMBER
----------	--------------

1764

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/714,586	<b>Applicant(s)</b> YAMAMOTO ET AL.	
	<b>Examiner</b> Hien Tran	<b>Art Unit</b> 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/16/00</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

2. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the drawings to comply with CFR 1.84(p)(5), e.g. they should include the reference sign(s) mentioned in the specification and vice versa.

### ***Specification***

3. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 7-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 7, it is unclear as to what applicants are attempting to recite, e.g. whether applicants are attempting to recite the motor vehicle or the catalyst or the combination thereof, where the body of the claim begins, what element of the claim defines the vehicle.

Art Unit: 1764

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3-5, 7, 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Wan (US 5,057,483).

With respect to claims 1, 3-4, 7, 9-10, Wan discloses an exhaust gas purification catalyst comprising: a carrier, a first coat layer disposed on a surface of said carrier and comprising a heat-resistant inorganic oxide, such as alumina having an additional substance, e.g. cerium oxide added thereto, and a catalyst-carrying layer (second coat) disposed on said first coat layer and having a catalyst supported thereon (see, for example, col. 5, lines 6-10; col. 5, line 47 to col. 6, line 41; col. 10, lines 11-13).

With respect to claims 5, 11, Wan discloses that said catalyst-carrying layer comprises one or more noble metals selected from the group consisting of platinum, palladium and rhodium, and a metallic oxide comprising alumina (col. 10, lines 11-36).

With respect to claim 7, Wan discloses that the exhaust gas purification catalyst is used in motor vehicles (col. 1, lines 8-20).

Instant claims 1, 3-5, 7, 9-11 structurally read on the apparatus of Wan.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1764

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. The art area applicable to the instant invention is that of catalytic converter.

One of ordinary skill in this art is considered to have at least a B.S. degree, with additional education in the field and at least 5 years practical experience working in the art; is aware of the state of the art as shown by the references of record, to include those cited by applicants and the examiner (*ESSO Research & Engineering V Kahn & Co*, 183 USPQ 582 1974) and who is presumed to know something about the art apart from what references alone teach (*In re Bode*, 193 USPQ 12, (16) CCPA 1977); and who is motivated by economics to depart from the prior art to reduce costs consistent with the desired product characteristics. *In re Clinton* 188 USPQ 365, 367 (CCPA 1976) and *In re Thompson* 192 USPQ 275, 277 (CCPA 1976).

11. Claims 1, 3-5, 7, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koda et al (DE 197 13 103) (corresponding to US 6,096,744) in view of Wan (5,057,483).

Art Unit: 1764

With respect to claims 1, 3-4, 7, 9-10, Koda et al discloses an exhaust gas purification catalyst comprising: a carrier 4, an undercoat layer 6 disposed on a surface of said carrier and comprising a heat-resistant inorganic oxide, such as alumina having an additional substance, e.g. cerium oxide added thereto, and a catalyst-carrying layer 7 disposed on said undercoat layer and having a catalyst supported thereon (col. 13, line 39 to col. 14, line 67).

The apparatus of Koda et al is substantially the same as that of the instant claims, but is silent as to whether the carrier may be metallic.

However, Koda et al discloses that the carrier material is not limited to cordierite (ceramic) (col. 13, lines 46-48).

Furthermore, Wan discloses the conventionality of select either metal or ceramic as a carrier.

It would have been obvious to one having ordinary skill in the art to alternately select metal as a carrier in the apparatus of Koda et al since such a modification would have involved a mere substitution of known materials as evidenced by Wan, since Koda et al teaches that the carrier material is not limited to cordierite and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

With respect to claims 5, 11, Koda et al discloses that said catalyst-carrying layer comprises one or more noble metals selected from the group consisting of platinum, palladium and rhodium, and a metallic oxide comprising alumina (col. 14, lines 1-12).

With respect to claim 7, Koda discloses that the exhaust gas purification catalyst is used in motor vehicles (col. 1, line 5 to col. 2, line 43).

Art Unit: 1764

12. Claims 2, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koda et al (DE 197 13 103) (corresponding to US 6,096,744) in view of Wan (5,057,483) as applied to claims 1, 3-5, 7, 9-11 above, and further in view of EP 813,899.

The modified apparatus of Koda et al is substantially the same as that of the instant claims, but fails to disclose the specific carrier as claimed,

However, EP 813,899 discloses the specific shape of the metallic carrier as claimed.

It would have been obvious to one having ordinary skill in the art to substitute the carrier of EP 813,899 for the carrier in the modified apparatus of Koda et al for the known and expected results of obtaining the same results in the absence of unexpected results.

13. Claims 2, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable Wan (5,057,483) in view of EP 813,899.

The same comments with respect to EP 813,899 apply.

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Arai et al, Kato et al, and Fujii et al are cited for showing state of the art.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1764

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HT  
May 14, 2004

*Hien Tran*  
**Hien Tran**  
**Primary Examiner**  
**Art Unit 1764**